

REMARKS/ARGUMENTS

The applicants would like to thank the Examiner for her time during the telephone call of August 11, 2003.

Claims 9, 12, and 32 have been canceled. Claim 1 has been amended to incorporate the limitations of claims 9 and 32. Claims 1, 7-8, 10-11, 18-19, 22-26, and 28-32 are pending.

The Examiner rejected claims 1, 10-11, 18, and 31-32 under 35 U.S.C. 102(b), as being anticipated by Rice et al., U.S. Patent 5,722,668. The Examiner stated that Rice shows the invention as claimed including an apparatus comprising: a vacuum chamber wall 12 defining a main cavity 10 for establishing a vacuum in the main cavity; a cover for sealing the opening when the cover is supported by the chamber wall comprising a first section 24 adjacent to the main cavity, wherein the first section of the cover is supported by the chamber wall 12; a second section 26 on a side of the first section opposite of the main cavity, wherein the second section is supported by the first section only where the first section is supported by the chamber walls; a pocket between the first section 22, 24 and the second section 26; and a critical element 20 supported by a region of the first section and extending into the main cavity from the first section, wherein support of the second section 26 by the first section is not above support of the critical element by the first section, wherein the pocket extends between the first section and the second section above the region of the first section upon which the critical element is supported, so that at least part of the first section is between the critical element and the pocket, and the first section extends across the opening and separates the critical element from the pocket (citing fig. 1 and col. 3, line 38, to col. 4, line 25).

Heating element 22 of Rice is not a first section of a cover, but instead a heating element, as described in col. 4, line 7 to 9, of Rice. Heating element 22 and cylindrical top wall 24 of Rice do not make a first section of a cover. These are separate elements that are not even joined together. Cooling element 26, described in col. 4, lines 9-12, of Rice is not a second section of a cover, but is a cooling element. Silicon ceiling 20, as described in col. 5, lines 39-45, of Rice is not a critical element, but is the cover. Col. 5, lines 31-45, of Rice describes how a seal is created between the silicon ceiling 20 and the chamber wall 12 to create a vacuum chamber. This again goes to show that the silicon ceiling 20 is a cover for forming the cover of the vacuum

chamber and therefore is not the recited critical element. Since the silicon ceiling 20 of Rice is the cover, the heating element 22 and cooling element 26 are not the cover. In addition, claim 1 has been amended to recite a vacuum tight seal between the first section and the second section and a vacuum tight seal between the first section and the vacuum chamber wall and that the first section separates the critical element from the pocket. Fig. 1 of Rice shows that the critical element 20 is exposed to at least part of the pocket. For at least these reasons, claim 1 is not anticipated by Rice.

Claims 10-11, 18, and 31 are ultimately dependent on claim 1, and are therefore respectfully submitted to be patentable over the art of record for at least the reasons set forth above with respect to claim 1. Additionally, these dependent claims require additional elements that when taken in the context of the claimed invention, further patentably distinguish the art of record. For example, claim 10 further recites that a main channel extends between the pocket and main cavity. The Examiner failed to point out such a channel in Rice. In addition, claim 31 recites that the first section of the cover extends across the opening. The combination of the heating element 22 and the top wall 24 of Rice do not extend across the opening. However, the ceiling 20 does extend across the opening. Since heating element 22 does not extend completely across the opening, parts of the silicon ceiling 20 is exposed to the pocket and therefore is not separated from the pocket. For at least these reasons, claims 10-11, 18, and 31 are not anticipated or made obvious by Rice.

The Examiner rejected claims 12, 23, and 28-30 under 35 U.S.C. 103(a), as being unpatentable over Rice et al. It would not be obvious to provide a vacuum seal between the heating element 22 of Rice and top wall 24. The sealing for maintaining a vacuum in the vacuum chamber of Rice is provided by vacuum seals 56, 58, 60. There is no motivation for providing vacuum seals between the heating element 22 and the top wall 24 of Rice. The Examiner stated that such seals would be a suitable means for preventing air from leaving or entering various regions of the apparatus, however, the Examiner provides no motivation as to why preventing air from leaving or entering between the cover of the vacuum chamber 20 and the heating element 22 would be desirable. Claim 12 has been canceled.

In addition, claim 23 further recites that the cover is for sealing the opening when the cover is supported by the chamber wall. This again shows that the ceiling 20 of Rice is a part of a cover not a critical element, since the ceiling is used for sealing the opening of the chamber when the ceiling is placed on top of the chamber. As a result, Rice does not disclose or make

obvious a critical element supported by the ceiling. Claims 28-30 are dependent on claim 23. In addition, claim 29 recites that the first section of the cover extends across the opening. The heating element 22 does not extend across the opening. For at least these reasons, claims 23, and 28-30 are not made obvious by Rice.

The Examiner rejected claims 7-9, 19, 22, and 24-26 under 35 U.S.C. 103(a), as being unpatentable over Rice et al., U.S. Patent 5,722,668 in view of Collins et al., U.S. Patent 6,365,063. The limitations of claim 9 have been incorporated into claim 1. The element 52 of Collins is a ceiling, as described in column 15, lines 13-19. The ceiling in both Rice and Collins forms the cover of the vacuum chamber, and are not critical element supported by the cover of the vacuum chamber, where the critical elements are electrodes. In addition, since the vacuum seal is placed between the ceiling and the chamber walls, it would not be obvious to put seals in other places, since there would be no motivation to prevent air from entering or leaving other places. In addition, these claims are ultimately dependent on claims 1 and 23. For at least these reasons, claims 7-8, 19, 22, and 24-26 are not made obvious by Rice in view of Collins.

Applicants believe that all pending claims are allowable and respectfully request a Notice of Allowance for this application from the Examiner. As discussed during the telephone conference, the applicant requests that the Examiner call the applicant to resolve any outstanding issues, the undersigned can be reached at telephone number (831) 655-2300.

Respectfully submitted,
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